

Innovation Management: Theoretical Foundations and Fundamental Applications

INSTRUCTORS

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CLASS SCHEDULE

October 17 – 19, 2017 10:00 – 16:30

December 11 – 12, 2017 10:00 – 16:30

LOCATION

University of Zurich – room TBD

COURSE OVERVIEW

The fundamental objective of this course is to provide students with a substantive introduction to the dimensions of the theoretical foundations of innovation management and strategy. As such, this doctoral seminar will explore relationships between the competitive environment, managerial action and the creation, capture, and delivery of value through innovation and related activities. The course takes a broad approach to these topics, reviewing notable studies found in the management, marketing and product innovation literatures. We begin with an overview of innovation and performance implications, and then consider topics such as disruptive innovation, competition and product launch, product and innovation efforts approached through inter-organizational alliance relationships, the role of product design, and strategic orientations. Incorporating a variety of perspectives gives the students a broader understanding of the observable phenomena, and the approaches scholars take to describe, explain and predict outcomes.

We also address issues of interest to the broader doctoral student community, such as effective research paper writing, how to avoid errors in paper submission and replying to editors and reviewers, and even what goes into an effective article review.

OBJECTIVES

The course is focused on providing students with an overview of some of the most important topics in the contemporary innovation and product development literature. It is also intended to help students advance their scholarly development. Since the ability to publish is so important for academic career progress, this course will also have emphasis on research practice. The overall intention is to provide students with experience conducting activities associated with producing and publishing high-quality research related to innovation management and product development.

COURSE STRUCTURE

The course will be taught using a seminar style. This means each student must take responsibility for the success of the class. Simply reading the assigned materials is insufficient—students are expected to come to class fully prepared to discuss their: (a) evaluation of the assumptions and insights associated with the assigned papers, (b) analysis of how these papers collectively fit with other literatures, and (c) identify opportunities to contribute to the body of knowledge on this topic. During the first set of sessions in October, all students will be responsible for being prepared to discuss a common set of readings, in addition to their individual topic leadership and one page summaries. During the second set of sessions in December, students will be prepared to share their research and engage with other students on theirs in a development workshop format.

Grading:

| | |
|------------------------|-----|
| Topic Leadership | 25% |
| One page summaries (5) | 20% |
| Paper | 30% |
| Paper Presentation | 5% |
| Participation | 20% |

Topic Leadership (1)

Provide a 1-2 page overview and integration of the articles. For each session, one or two of you will be assigned to lead a discussion. The discussion leader's task is to prepare the topic to be discussed on the assigned day and encourage active interchange of opinions and viewpoints in the class. For this task, the discussion leader should become very familiar with the topic and should make every attempt to read not only the required readings but also some of the recommended readings, where listed. Distributing a handout of the summary to the class, and/or an overhead presentation will expedite dissemination of knowledge. The discussion leader will be graded individually based on how well his/her roles are played.

Topic Extension – as part of the topic leadership, please find one significant, recent article in the same domain. Be prepared to explain the basic concepts of this article and how it relates to the topic and what gap it fills in the literature.

IMPORTANT – Please send an email to tim@business.uzh.ch **by September 15** indicating your top 3 topics of interest. Students will receive their topic assignment by September 22.

One page summaries (5)

A one or two page summary of an article from each of the 5 topics where you are not the discussion leader is required.

- Title of the reading (full citation)
- Purpose of the reading: This section should describe how this reading fits in within the broader topical area (research stream), its fundamental objectives, etc.
- Theoretical Argument: This section should summarize the theoretical argument of the reading, basic assumptions, hypotheses/propositions, etc.
- Methodology: If the paper is empirical, this should summarize the research methods including data collection, statistical methods, etc.
- Results and Conclusions: This section should summarize any empirical results, any theoretical and normative conclusions, other implications, etc.

Please conclude each summary with a thought provoking point or discussion question drawn from the article for the class to consider.

Students should make copies of the summaries for everyone in class and distribute them at the beginning of the respective session

Research Paper and Presentation (1)

Each of you is asked to present and submit a conceptual paper during the second set of sessions in December. This paper should be a critical review of an innovation paradigm or an important research stream, offering a synthesis, possibly propositions, and ideas for future development of this topical area.

You may position this work as a theory-building paper, a conceptual paper, or a literature review. It may focus on a topic of interest, where you may follow up with an empirical study. The aim of this exercise is to enhance your analytical skills through critical thinking and initiate you to the tasks of scholarly publication. You should develop this paper in such a way so that it can be submitted to a leading refereed journal.

If you have data available to work with, then you are welcome to extend the paper to include the empirics.

The final version of the paper (approximately 25 double-spaced pages in length, including references, tables, and figures) should be submitted to tim@business.uzh.ch by 5:00 p.m., on December 5th.

Each student will turn in a 3-4 page typed proposal of their research paper to tim@business.uzh.ch by October 30th to ensure the topic is relevant and has merit for further development. The instructors will provide feedback to help the student move forward most effectively.

Theoretical Foundations of Innovation Management

Topics and Articles

Fall 2017

Topic 1: The Study and Measurement of Innovation

1. Ahuja, G., Lampert, C. M., & Tandon, V. (2008). Moving Beyond Schumpeter: Management Research on the Determinants of Technological Innovation. *The Academy of Management Annals*, 2(1), 1-98.
2. Abernathy, W.J., & Clark, K.B. (1985). Innovation: Mapping the Winds of Creative Destruction. *Research Policy*, 14(1), 3-23.
3. Neelamegham, R., & Chintagunta, P. (1999). A Bayesian Model to Forecast New Product Performance in Domestic and International Markets. *Marketing Science*, 18(2), 115-136.
4. Montoya-Weiss, M. M., & Calantone, R. (1994). Determinants of New Product Performance: A Review and Meta-analysis. *Journal of Product Innovation Management*, 11(5), 397-417.
5. Henard, D. H., & Szymanski, D. M. (2001). Why Some New Products Are More Successful Than Others. *Journal of Marketing Research*, 38(3), 362-375.
6. Brown, S. L., & Eisenhardt, K. M. (1995). Product Development: Past Research, Present Findings, and Future Directions. *The Academy of Management Review*, 20(2), 343-378.
7. Fagerberg, J., & Verspagen, B. (2009). Innovation Studies—The Emerging Structure of a New Scientific Field. *Research Policy*, 38(2), 218-233.
8. Utterback, J. M., & Abernathy, W. J. (1975). A Dynamic Model of Process and Product Innovation. *Omega*, 3(6), 639-656.
9. Jones, B. F. (2009). The Burden of Knowledge and the “Death of the Renaissance Man”: Is Innovation Getting Harder? *The Review of Economic Studies*, 76(1), 283-317.

Topic 2: Disruptive innovation

1. Ansari, S. A., Garud, R., & Kumaraswamy, A. (2015). The Disruptor's Dilemma: TiVo and the U.S. Television Ecosystem. *Strategic Management Journal*. (doi/10.1002/smj.2442).
2. Tushman, M. L., & Anderson, P. (1986). Technological Discontinuities and Organizational Environments. *Administrative Science Quarterly*, 31(3), 439-465.
3. Tripsas, M. (1997). Unraveling the Process of Creative Destruction: Complementary Assets and Incumbent Survival in the Typesetter Industry. *Strategic Management Journal*. 18 (S1), 119-142.
4. Henderson, R. (1993). Underinvestment and Incompetence as Responses to Radical Innovation: Evidence from the Photolithographic Alignment Equipment Industry. *Rand Journal of Economics*, 24(2), 248-270.
5. Leonard-Barton, D. (1992). Core Capabilities and Core Rigidities: A Paradox in Managing New Product Development. *Strategic Management Journal*, 13(2), 111-125.
6. Henderson R, Clark KB. 1990. Architectural Innovation: The Reconfiguration of Existing Product Capabilities and the Failure of Established Firms. *Administrative Science Quarterly*, 35: 9-30.

Additional Suggested Readings:

Christensen, C.M. (1997). *The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail*. Cambridge, MA: Harvard Business School Press. (Introduction 7-19, Chapter 3, 60-71, Chapter 10, 159 - 171, Chapter 11, 172-174).

Markides, C. (2006). Disruptive Innovation: In Need of Better Theory. *Journal of Product Innovation Management*, 23 (1), 19-25.

King, A.A., & Baatartogtokh, B. (2015). How Useful is the Theory of Disruptive Innovation. *MIT Sloan Management Review*, 57(1), 77-90.

Kapoor, R., & Klueter, T. (2015). Decoding the Adaptability-Rigidity Puzzle: Evidence from Pharmaceutical Incumbents' Pursuit of Gene Therapy and Monoclonal Antibodies. *Academy of Management Journal*, 58 (4), 1180-1207.

Robert W. Veryzer Jr. 1998 Discontinuous Innovation and the New Product Development Process. *Journal of Product Innovation Management*

Topic 3: Inter-organizational relationships: R&D collaborations & alliances

1. Hamel, G. (1991). Competition for Competence and Inter-partner Learning within International Strategic Alliances. *Strategic Management Journal*, 12(4), 83-103.
2. Grant, R. M., & Baden-Fuller, C. (2004). A Knowledge Accessing Theory of Strategic Alliances. *Journal of Management Studies*, 41(1), 61-84.
3. Rosenkopf, L., & Almeida, P. (2003). Overcoming Local Search through Alliances and Mobility. *Management Science* 49(6), 751-766.
4. Oxley, J. E., & Sampson, R. C. (2004). The Scope and Governance of International R&D Alliances. *Strategic Management Journal*, 25(8-9), 723-749.
5. Davis, J. P., & Eisenhardt, K. M. (2011). Rotating Leadership and Collaborative Innovation Recombination Processes in Symbiotic Relationships. *Administrative Science Quarterly*, 56(2), 159-201.
6. Sampson, R. C. (2007). R&D Alliances and Firm Performance: The Impact of Technological Diversity and Alliance Organization on Innovation. *The Academy of Management Journal*, 50(2), 364-386.
7. Stuart, T.E. (1998). Network Positions and Propensities to Collaborate: An Investigation of Strategic Alliance Formation in a High-technology Industry. *Administrative Science Quarterly*, 43(3), 668-698.

Additional Suggested Readings:

Un, C. A., Cuervo-Cazurra, A., & Asakawa, K. (2010). R&D Collaborations and Product Innovation. *Journal of Product Innovation Management*, 27(5), 673-689.

Walter, J., Lechner, C., & Kellermann, F.W. (2007). Knowledge Transfer between and within Alliance Partners: Private versus Collective Benefits of Social Capital. *Journal of Business Research*, 60(7), 698-710.

Simonin, B.L. (1999). Ambiguity and the Process of Knowledge Transfer in Strategic Alliances. *Strategic Management Journal*, 20(7), 595-623.

Madhavan, R., & Grover, R. (1998). From Embedded Knowledge to Embodied Knowledge: New Product Development as Knowledge Management. *Journal of Marketing*, 62(4), 1-12.

Townsend, J.D., Balestra, S., & Schulze A. (2017). Characteristics of Project Based Alliances: Evidence from the Automotive Industry, *International Journal of Automotive Technology Management*, forthcoming.

Schulze, A., Brojerdi, G., & von Krogh, G. (2014). Those Who Know, Do. Those Who Understand, Teach. Disseminative Capability and Knowledge Transfer in the Automotive Industry. *Journal of Product Innovation Management*, Special Issue on Innovation in the Global Automotive Industry, 31(1), 79-97.

Topic 4: Launch and Competition

1. Kerin, R. A., Varadarajan, P. R., & Peterson, R. A. (1992). First-Mover Advantage: A Synthesis, Conceptual Framework, and Research Propositions. *Journal of Marketing*, 56(4), 33–52.
2. Shankar, V. (1999). New Product Introduction and Incumbent Response Strategies: Their Inter-Relationship and the Role of Multi-Market Contact. *Journal of Marketing Research*, 36(3), 327–344
3. Hultink, E. J., & Langerak, F. (2002). Launch Decisions and Competitive Reactions: An Exploratory Market Signaling Study. *Journal of Product Innovation Management*, 19(3), 199–212.
4. Golder, P. N., & Tellis, G. J. (1993). Pioneer Advantage: Marketing Logic or Marketing Legend? *Journal of Marketing Research*, 30(2), 158–170.
5. Debruyne, M., Rudy, M., Griffin, A., Hart, S., Hultink, E. J., & Robben, H. (2002). The Impact of New Product Launch Strategies on Competitive Reaction in Industrial Markets. *Journal of Product Innovation Management*, 19(2), 159–170.
6. Yoon, E., & Lilien, G. L. (1985). New Industrial Product Performance: The Effects of Market Characteristics and Strategy. *Journal of Product Innovation Management*, 2(3), 134–144.
7. Suarez, F. F., & Lanzolla, G. (2007). The Role of Environmental Dynamics in Building a First Mover Advantage Theory. *Academy of Management Review*, 32(2), 377–392.
8. Lee, H., Smith, K. G., Grimm, C. M., & Schomburg, A. (2000). Timing, Order and Durability of New Product Advantages with Imitation, *Strategic Management Journal*, 21 (1), 23–30.
9. Talay, M. B., & Townsend, J. D. (2015). Do or Die: Competitive Effects and Red Queen Dynamics in the Product Survival Race. *Industrial and Corporate Change*, 24(3), 721–738.

Topic 5: Innovations and Product Design

1. Bloch, P.H. (1995). Seeking the Ideal Form: Product Design and Consumer Response. *Journal of Marketing*, 59(3), 16-29.
2. Rindova, V.P., & Petkova, A.P. (2007). When is a New Thing a Good Thing? Technological Change, Product Form Design, and Perceptions of Value for Product Innovations. *Organization Science*, 18(2), 217-232.
3. Veryzer, R. W., & Borja de Mozota, B. (2005). The Impact of User-Oriented Design on New Product Development: An Examination of Fundamental Relationships. *Journal of Product Innovation Management*, 22(2), 128-143.
4. Verganti, R. (2008). Design, Meanings, and Radical Innovation: A Metamodel and a Research Agenda. *Journal of Product Innovation Management*, 25(5), 436-456.
5. Hertenstein, J. H., Platt, M. B., & Veryzer, R. W. (2005). The Impact of Industrial Design Effectiveness on Corporate Financial Performance. *Journal of Product Innovation Management*, 22(1), 3-21.
6. Townsend, J. D., Kang, W., Montoya, M. M., & Calantone, R. J. (2013). Brand-Specific Design Effects: Form and Function. *Journal of Product Innovation Management*, 30(5), 994-1008.
7. Chitturi, R., Raghunathan, R., & Mahajan, V. (2007). Form Versus Function: How the Intensities of Specific Emotions Evoked in Functional Versus Hedonic Trade-Offs Mediate Product Preferences. *Journal of Marketing Research*, 44(4), 702-714.

Topic 6: Strategic Orientation and Innovation Performance

1. Atuahene-Gima, K., & Ko, A. (2001). An Empirical Investigation of the Effect of Market Orientation and Entrepreneurship Orientation Alignment on Product Innovation. *Organization Science*, 12(1), 54–74.
2. Atuahene-Gima, K., Slater, S. F., & Olson, E. M. (2005). The Contingent Value of Responsive and Proactive Market Orientations for New Product Program Performance. *Journal of Product Innovation Management*, 22(6), 464–482.
3. Gatignon, H., & Xuereb, J.-M. (1997). Strategic Orientation of the Firm and New Product Performance. *Journal of Marketing Research*, 34(1), 77–90.
4. Li, T., & Calantone, R. J. (1998). The Impact of Market Knowledge Competence on New Product Advantage: Conceptualization and Empirical Examination. *Journal of Marketing*, 62(4), 13–29.
5. Li, Y., Guo, H., Liu, Y., & Li, M. (2008). Incentive Mechanisms, Entrepreneurial Orientation, and Technology Commercialization: Evidence from China's Transitional Economy. *Journal of Product Innovation Management*, 25(1), 63–78.
6. Mu, J., & Di Benedetto, C. A. (2011). Strategic Orientations and New Product Commercialization: Mediator, Moderator, and Interplay. *R&D Management*, 41(4), 337–359.
7. Noble, C. H., Sinha, R. K., & Kumar, A. (2002). Market Orientation and Alternative Strategic Orientations: A Longitudinal Assessment of Performance Implications. *Journal of Marketing*, 66(4), 25–39.
8. Salomo, S., Talke, K., & Strecker, N. (2008). Innovation Field Orientation and Its Effect on Innovativeness and Firm Performance. *Journal of Product Innovation Management*, 25(6), 560–576.
9. Zhou, K. Z., Yim, C. K. (Bennett), & Tse, D. K. (2005). The Effects of Strategic Orientations on Technology- and Market-Based Breakthrough Innovations. *Journal of Marketing*, 69(2), 42–60.

Foundational Literature:

Kohli, A. K., & Jaworski, B. J. (1990). Market Orientation: The Construct, Research Propositions, and Managerial Implications. *Journal of Marketing*, 54(2), 1–18.

Narver, J. C., & Slater, S. F. (1990). The Effect of a Market Orientation on Business Profitability. *Journal of Marketing*, 54(4), 20–35.

Lumpkin, G. T., & Dess, G. G. (1996). Clarifying the Entrepreneurial Orientation Construct and Linking It to Performance. *The Academy of Management Review*, 21(1), 135–172.

Miller, D. (1983). The correlates of entrepreneurship in three types of firms. *Management Science*, 29(7), 770–791.

Professor Dr. Anja Schulze

Anja Schulze is Swiss National Science Foundation (SNSF) Professor of Technology and Innovation Management at the University of Zürich. Her research interests are in innovation, new product development, and technology management with a special consideration of the automotive industry. Her publications appeared in the field's journals, such as the Journal of Product Innovation Management or Research Policy, but also in other journals such as the Journal of Management.

Prof. Schulze is heading the swiss Center for Automotive Research (swiss CAR) and she is an active member of the Program for Vehicle and Mobility Innovation (PVMI) at the Mack Centre for Technological Innovation of the Wharton School. Prof. Schulze has established competence on the automotive industry's specifics and maintains long-term relationships with companies in this industry which has allowed for the identification and framing of research problems highly relevant to the industry as well as exceptional access to empirical data.

Professor Dr. Janell D. Townsend

Janell D. Townsend is an Associate Professor of Marketing and International Business in the School of Business Administration at Oakland University, a member of the faculty of the MSc in Engineering Management program at Vienna University of Technology (TU Wien), and was recently the Hedi Fritz-Niggli Visiting Professor of Business at the University of Zurich. She has also been a visiting professor at Michigan State University and an instructor at Wayne State University.

Prof. Townsend's research interests are broadly defined by strategic and international marketing issues, and fall within the nexus of branding, innovation, and globalization of the firm, helping to extend understanding of complex phenomena in an ever more global marketplace. Current projects incorporate aspects of product design and brand portfolio management, strategic orientation, and globalization of the firm. Professor Townsend's research has appeared in top tier business journals such as Marketing Letters, Journal of International Business Studies, Journal of Product Innovation Management, Journal of International Marketing, International Marketing Review, and Industrial and Corporate Change, among others.

In addition to her research, teaching, and service, Dr. Townsend regularly consults on research projects for industry, lends her expertise through executive coaching, and has a number of collaborations with automotive OEM's, suppliers, and global market research firms. She also has professional experience with Clarion Corporation, Unisys, and Intel.